

# FORMER NEBRASKA ORDNANCE PLANT

## RESTORATION ADVISORY BOARD

July 13, 2006

Restoration Advisory Board Meeting – July 13, 2006

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Slide #1

## Introductions

7:00-7:10

- Community Co-Chair – Melissa Konecky
- Army Co-Chair – Garth Anderson
- Restoration Advisory Board (RAB) Members

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## Introductions – Community RAB Members

### ACTIVE MEMBERS

Melissa Konecky (RAB Co-Chair)  
John Wageman  
Paul Randazzo

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## Introductions – Agency RAB Members

Lincoln Department of Water Resources  
Lincoln Water System  
Lower Platte North Natural Resource District, Larry Angle  
Nebraska Department of Environmental Quality  
Nebraska Health and Human Services System  
Nebraska National Guard  
Saunders County  
University of Nebraska – Lincoln, Agricultural Research and Development Center  
University of Nebraska – Lincoln, Environmental Health and Safety  
University of Nebraska, Office of General Counsel  
US Army Corps of Engineers, Garth Anderson (RAB Co-Chair)  
US Army Reserve  
US Environmental Protection Agency, Region 7, Scott Marquess

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## Administrative Items

7:00-7:10

- Meeting Guidelines
  - RAB and Public participation
  - Honor time limits (Start on Time/End on Time)
  - Stick to the agenda
  - Please hold your questions until the Q&A period
  - One question at a time
  - Respect others
  - No personal attacks
  - Ensure equal participation

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## Administrative Items

7:00-7:10

- Meetings are being recorded
  - Cameras are being used to videotape this meeting
  - Transcriptionist is present to record this meeting
  - When you ask a question – you will need to state your name loudly and clearly for the transcriptionist to hear you
  - One question at a time

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## Administrative Items

7:00-7:10

- **Mead Project Mailing List**
  - In order to better share information with the community, we update our mailing list
  - If you would like to receive site information from us, please use the forms to give us your name and address
  - This information will not be shared with anyone and will only be used to mail information to you

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## Administrative Items

7:00-7:10

- **Mead Project Web Site**
  - <http://www.nwk.usace.army.mil/projects/mead/projectindex.html>
  - Email list. By request, we will send email notifications when new information is posted on the web site.

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## Agenda

7:10-7:15

- **Status Update – Activities since last RAB Meeting**
- **Site Management Plan**
- **Groundwater Monitoring Program (GMP) Status**
  - Results from March 2006
  - Direct-push sampling results
- **Next RAB Meeting & Upcoming Activities**
  - Meeting Date and topics
- **Question & Answer Period**

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## Agenda

- **Status Update** (last 3 months)
  - Site Tour
  - Site Management Plan
  - March 2006 GMP sampling results
  - Fall 2005 & Spring 2006 Investigation results
  - New design for treatment system on EW-11
  - Improvements to document library
- **Upcoming Work** (next 3-6 months)
  - New monitoring wells to be installed
  - Future performance evaluations (i.e. containment)

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## Status Update

- **Site Management Plan:**
  - Major Elements of Draft SMP:
    1. On-going O&M of Treatment Systems
    2. Investigation of Plume Interior & Focused Extraction
    3. Annual Groundwater Monitoring Program (GMP)
    4. Annual Performance Evaluations – Containment Evaluation
    5. Eastern Plume Boundary – Baseline and Monitor
    6. Additional Investigations
    7. Community Relations
    8. Overall Project Management & 5 Year Review
- **SMP developed with help from EPA & DEQ**

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## Status Update

- **Site Management Plan:**
  - Planned Activities for 2006
    - Already completed investigation sampling of eastern boundary - to establish locations for permanent MUD monitoring wells
    - Will install and sample new monitoring wells - southern & eastern plume boundaries - bolster existing network of monitoring wells
    - Load Line 1 Treatment System - construction completed & started normal operations in Feb 2006

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## Status Update

- Site Management Plan:
  - Planned Activities for 2006:
    - Will complete design of EW-11 Advanced Oxidation Process treatment system
    - Will produce updated groundwater computer model
    - Will start the 5 Year Review
    - Will sample 1 Mile and ½ Mile Buffer Zone (3rd consecutive year)

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## Status Update

- Site Management Plan:
  - Planned Activities for 2007:
    - Perform sampling on Eastern Perimeter to monitor status of plume
    - Complete regulatory required 5 Year Review
    - Complete formal Containment Evaluation according to criteria. Publish *Annual Remedy Performance Report*
    - Finish construction of EW-11 AOP system
    - Conduct more investigation inside of the plume
    - Sample the 1 Mile and ½ Mile Buffer Zone

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## Status Update

- Site Management Plan:
  - Planned Activities for 2008:
    - Update existing groundwater model
    - Install GCW's
    - Conduct investigation for source areas
    - Monitor plume status
    - Continue Buffer Zone monitoring

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## Status Update

- Site Management Plan:
  - Planned Activities for 2009 and beyond:
    - Monitor plume status
    - Possible plume interior investigations
      - locate hot spots
    - Possible pilot studies for hot spot treatment
    - Continue Buffer Zone monitoring

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## Status Update

- Site Management Plan:
  - Planned Budget – subject to revision
    - FY2006 = \$4.0M
    - FY2007 = \$5.8M
    - FY2008 = \$6.4M
    - FY2009 = \$6.5M
    - FY2010 = \$7.1M
  - Annual operating costs for O&M = \$1.9 to \$2.7M
  - Annual sampling cost for GMP = \$600 to \$900K
  - Investigation work = approx \$250K for each event

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## Status Update - GMP

- June 2006 GMP
  - Sampling Completed June 20, 2006
  - 21 Monitoring Wells (MWs) sampled
  - 4 Residential Water Supply Wells (WSWs) sampled
  - 11 Surface Water Locations sampled
  - Data Results Letters & Quarterly Data Report anticipated to be finalized in early October 2006

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## Status Update - GMP

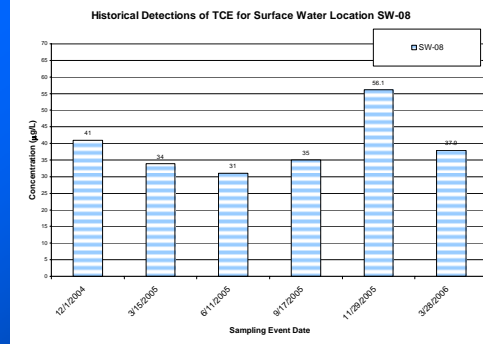
### March 2006 GMP

- Data Summary Report posted on project website
- Summary of OU2 Record of Decision contaminants in handout
- Trends of surface water detections at select locations are included in this presentation.

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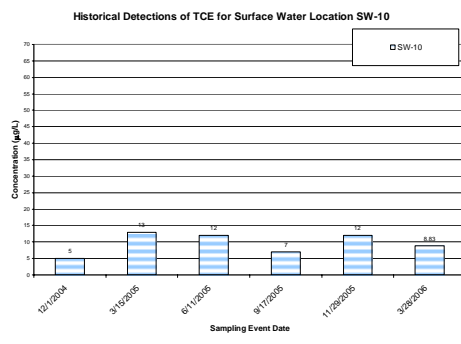
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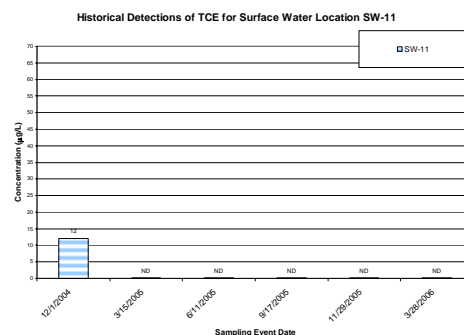
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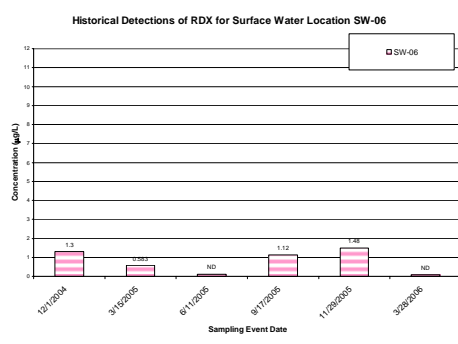
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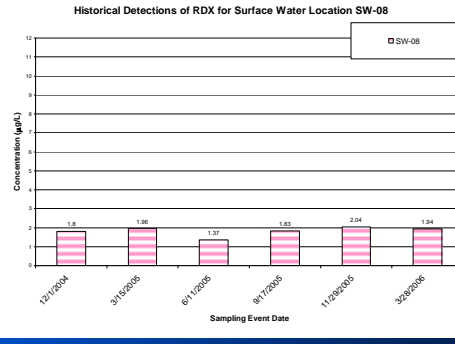
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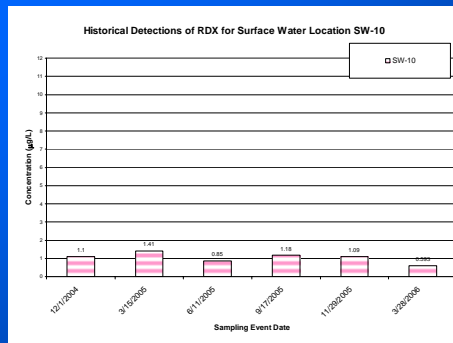


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## Status Update

GMP Documents submitted since last RAB meeting

- March 2006 Quarterly Data Summary Report (July 2006)
- Draft-Final GMP Global Project Plans (June 2006)
- Draft 2005 Annual Report (May 2006)

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## Status Update

- Fall 2005 & Spring 2006 Investigation results:
  - Nov/Dec 2005 – samples collected from 118 locations
  - March/April 2006 – samples collected from additional 102 locations
  - Samples collected from 3 different depths at each location
  - Over 700 analytical results
  - Report submitted to EPA and NDEQ (June 06)

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## Status Update

- Fall 2005 & Spring 2006 Investigation results:
  - Results are shown on wall maps
    1. Old 1997 Map showing plume area
    2. Sample locations without results
    3. Sample locations with results
    4. Re-interpretation of TCE & RDX plume outlines
    5. Compare the re-interpreted plume outlines vs. the old 1997 plume boundaries

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## Status Update

- Fall 2005 & Spring 2006 Investigation results:
  - Conclusions:
    - Eastern TCE plume boundary has not changed significantly since 1997
    - RDX plume may be significantly smaller than what was previously determined in 1997
    - New permanent monitoring wells should be installed on eastern side, and routine monitoring should be performed

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## Status Update

- New design for treatment system on EW-11:
  - A Draft Remedial Design for a new treatment system for EW-11 was submitted at the end of June 2006 to EPA and NDEQ for review
  - The new system will use an advanced oxidation process to treat contaminated water from EW-11

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## Status Update

- Improvements to document library:
  - New computer installed at the Mead Public Library
  - Computer loaded with historical documents
  - New documents will also be loaded onto the computer
  - Videos of RAB meetings

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## Upcoming Work

- New monitoring wells to be installed:
  - The exact # and location of new wells are being discussed with the regulatory agencies and the land-owners
  - The new wells will consist of:
    - New Observation Wells (OWs)
    - New Southern Perimeter Monitoring Wells
    - New Eastern Perimeter Monitoring Wells
  - USACE intends to install all new wells by the end of December 2006

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## Upcoming Work

- New monitoring wells to be installed:
  - Observation Wells:
    - Approximately 30 new OWs
    - Purpose of OWs is to measure the performance of the extraction wells
    - Approximately 70 OWs already exist at the site
    - Nearly all of the new OWs will be on University property, because almost all of the extraction wells are on the University property

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## Upcoming Work

- New monitoring wells to be installed:
  - Southern Perimeter Monitoring Wells:
    - Approximately 33 new MWs
    - Purpose of Southern Perimeter MWs is to monitor the status of the plume in the southerly direction
    - Approximately 35 MWs already exist along the southern perimeter of the site
    - Most of the new Southern Perimeter MWs will be on University property. But a few will be on private property.

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## Upcoming Work

- New monitoring wells to be installed:
  - Eastern Perimeter Monitoring Wells:
    - Approximately 39 new MWs
    - Purpose of Eastern Perimeter MWs is to monitor the status of the plume in the easterly direction
    - Approximately 30 MWs already exist along the Eastern perimeter of the site
    - Nearly all of new Eastern Perimeter MWs will be on private property.

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## Upcoming Work

- Future performance evaluations (i.e. containment)
  - Each year the extraction system will be reviewed to determine if the contaminant plumes are still being adequately captured
  - This will be published in the *Annual Remedy Performance Report*
  - This report will be reviewed by EPA and NDEQ

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## Upcoming Work

- Future performance evaluations (i.e. containment)
  - The determination will be based on several things
    - Results from Monitoring Wells
    - Measurements from Observation Wells
    - Pumping rates and water level measurements from Extraction Wells
    - Measurements from other sources such as USGS gauging stations and LPNRD wells

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## Upcoming Work

- Future performance evaluations (i.e. containment)
  - Each year the Annual Report will compare all the results to decide if the contamination is being adequately captured by the extraction wells
  - This decision is based on a combination of actual results and conclusions from the groundwater model

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## Next Meeting Date

Next RAB Meeting: October 19, 2006

Topics: Please send any suggestions

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